



Information

DEPARTMENT OF ENTOMOLOGY • COLLEGE PARK, MD 20742 • (301) 405-3913

Handling Pesticide Spills

Pesticide Information Leaflet No. 16

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Every pesticide applicator needs a plan for dealing with pesticide spills. Only by planning ahead can you be ready to react quickly and handle a spill properly. The time spent today on preparing a plan will be extremely valuable in an emergency when seconds count. While no plan can anticipate every pesticide emergency, doing the evaluations in this guide and following the risk reduction recommendations will help you avoid spills when possible and manage spills appropriately if they occur.

Preventing Spills Through Planning

The first step in your plan is to identify the practices that increase the risk or danger of pesticide spills. These practices can be divided into three activities: storage, mixing/handling, and transportation. Use the checklist as a guide to determine if your operation has any practices that could be improved. Safe operators will be able to answer "Yes" to all of the questions below. Safety tips follow the checklist to help you improve your practices, if necessary.

Pesticide storage checklist

- | YES | NO | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Have you completed any planning requirements to which you may be subject by law (Community Right-to-Know)? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are pesticides stacked and stored properly? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the storage area securely locked to keep out children or vandals? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are pesticides protected from freezing, which could lead to container breakage as well as product damage? |
| <input type="checkbox"/> | <input type="checkbox"/> | Have old, banned, or unlabeled pesticides been disposed of properly, with none remaining in storage? |

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- ☐ ☐ Do you avoid storing excess pesticides by purchasing only what you need for a single season's use?
- ☐ ☐ In the event of a storage area spill, have you considered where the spill will flow?
- ☐ ☐ Are pesticides in granular or dust form protected from dampness, rain water, and flooding?
- ☐ ☐ Are absorbent materials and watertight containers readily available in case of a spill?

Storage safety tips

- ! Ask your county Extension Service office for *Pesticide Information Leaflet No. 1, Superfund Amendments and Reauthorization Act (SARA): Pesticide Users' Responsibilities*, which explains reporting requirements associated with planning for pesticide storage under the law commonly known as Community Right-to-Know.
- ! Avoid long-term storage of pesticides.
- ! Find out if a state- or county-wide pesticide disposal day is planned.
- ! Securely lock the storage area.
- ! Prepare a spill clean-up kit consisting of at least 25 pounds of kitty litter or other absorbent material, a shovel, watertight metal or plastic containers, and protective gear, including: coveralls, rubber or neoprene boots and gloves, goggles, and a respirator.

Mixing/handling checklist

YES NO

- ☐ ☐ Do you have a mixing pad that is properly diked to contain pesticide spills and/or residue from rinsing equipment?
- ☐ ☐ If you mix pesticides in the field, do you change your pesticide mixing location yearly?
- ☐ ☐ Are pesticides mixed more than 100 feet from vulnerable areas such as wells, streams, or livestock?
- ☐ ☐ When filling a tank with water, is there an air gap between the hose and the pesticide to prevent back-siphoning or has an anti-backsiphon valve been installed?
- ☐ ☐ Is someone constantly supervising the filling of spray tanks?
- ☐ ☐ Could your pesticides be transferred in a "closed system" or bulk system?
- ☐ ☐ Is your equipment free of cracks in hoses, tanks, and containers, and generally well-maintained?

Mixing/handling safety tips

- ! Mix pesticides in a safe place. Mixing in the field eliminates the transportation of large quantities of mixed pesticide along county roads.
- ! Never mix pesticides near a wellhead, stream, or other potential water contamination source.

- ! To avoid "hot spots" of overloaded soil, do not mix in the same location every year.
- ! Do not mix pesticides near livestock areas.

Transportation checklist

YES NO

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | When picking up pesticides from your dealer, do you bring rope or cords to securely tie the containers down? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you block and brace containers? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are your pesticides kept separated from the driver, such as in the trunk or the bed of a pick-up? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you carry clean-up equipment in case of a spill? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you maintain vehicles and sprayers in good condition? |
| <input type="checkbox"/> | <input type="checkbox"/> | When transporting a load of pesticides, do you drive with special care and avoid bad roads, steep embankments, and roads along rivers or streams? |

Transportation safety tips

- ! When transporting pesticide containers, tie them down securely, carry clean-up equipment along, take the best roads, and avoid streams or rivers.
- ! When going out to apply pesticides, check equipment thoroughly, avoid steep places, and drive with extreme caution.

Spill Management

If a spill occurs, follow the procedures below to control, contain, and clean up the spill.

Control

- ! Identify the source of the spill and try to stop it, preventing further spillage. For example, if a small container is leaking, place it in a larger waterproof container. If a hose has broken, turn off the pump.
- ! Isolate the area. Rope it off or place barriers around it. Keep people and animals at least 30 feet away from the spill. Avoid coming into contact with any pesticide or its fumes.
- ! Call for help if the spill is large or if it is likely to contaminate a water source. The Chemical Transportation Emergency Center (CHEMTREC) at 1-800-424-9300 is staffed 24 hours a day by trained personnel who can help you. The Maryland Department of the Environment (MDE) also has a 24-hour hotline for emergencies: 410-974-3551.

Containment

- ! Put on appropriate safety gear. At a minimum, a long-sleeved shirt, long pants, and rubber or neoprene boots and gloves should be worn while cleaning up a spill. Depending on the product, the amount spilled, and whether the spill is within an enclosed area or outdoors, you may also need a respirator and goggles. Wear the level of protective gear required on the pesticide label for use during handling the pesticide.

- ! Stop the spread of the pesticide spill. Place containment booms around the spill or build a dam of soil. It is important to prevent the pesticide from entering any body of water, including storm sewers or sanitary sewers. For liquid pesticides, dig a sump and pump out the liquid that flows into the hole.
- ! Spread absorbent material such as kitty litter, vermiculite, or a commercial spill containment product over the remainder of the spill. Dry pesticides will not spread very far except during windy and/or rainy weather.
- ! Consider covering the area with a plastic tarp.
- ! **NEVER hose down a spill!** This only spreads the pesticide.

Clean up

- ! Continue to add absorbent material until all the liquid is soaked up.
- ! Shovel the contaminated material into a leak-proof container.
- ! Decontaminate the area.
 - C Common household bleach is usually an effective chemical on concrete or wood surfaces. Read the pesticide label for specific decontamination directions.
 - C For minor spills, apply activated charcoal to contaminated soil. For large spills, the only effective way to decontaminate soil saturated with pesticide is to remove the soil until no visible stain or odor is observed.

- ! Whether these soil clean-up methods are justified depends on which pesticide was spilled and how much was spilled.

Disposal

- ! If possible, the spilled pesticide should be applied to a labeled site at or below the labeled rate. For example, absorbent material used to clean up a spilled pesticide could be spread on a labeled site using a manure spreader. Some commercial products available for soaking up spills are designed to dissolve when water is added. The mixture can be added back into the spray tank and applied to a labeled site.
- ! Contaminated soil and absorbent materials must be disposed of properly. Check with MDE to determine how to safely dispose of these materials.

Reporting the spill

- ! If the spill might contaminate water or affect public health, you must report the spill. Call MDE at 1-800-633-6101 for help in determining whether you need to report a particular spill.
- ! Also report any spills to the Maryland Department of Agriculture (MDA) at 410-841-5710.
- ! By law, some pesticide spills must be reported if the amount spilled exceeds a specified level. Ask your county Extension Service office for *Pesticide Information Leaflet No. 1, Superfund Amendments and Reauthorization Act (SARA): Pesticide Users' Responsibilities* for more information on reporting requirements.

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